Pathways Taskforce

March 23, 2015

Agenda

1. Priority Sector Determination
2. Overview of Regional EWIN Project
3. Consideration of Definitions and Framework Development
4. Update on Work-And-Learn Initiatives

Pathways Taskforce Assignments

1. Identify Priority Occupations and Employment Sectors
2. Develop and Disseminate Framework for Sector Strategies/Partnerships
3. Career Counseling and Pathway Development
4. Expansion of Work Based Learning
5. Integrated/Coordinated Career Pathways from k-12 into the Workforce
6. Success of Completion Bonus and Return-to-Complete Higher Education Programs

Priority Sector Determination

Sector strategies are partnerships of employers within one industry that bring government, education, training, economic development, labor, and community organizations together to focus on the workforce needs of an industry within a regional labor market. At the state level, they are policies and investments that support the development of local sector partnerships.

-National Governors Association

- How does Indiana wish to define its role?
- NGA suggests: States focus on developing policies and investments that support local initiatives.

Why Should Indiana Identify Sectors?

1. Creates consistency through statewide definitions and framework. Statewide approach is meant to increase capacity at the regional level, not stifle innovation.
2. Ensures system alignment and the focused use of State's limited resources for serving certain populations.
3. The determination of priority sectors and occupations and the work of sector partnerships toward career pathways can create a uniform message around career counseling. However, different approaches may be required for different audiences.
4. Articulated as a strategy in the Career Council's Strategic Plan

Recent Studies for Consideration

In partnership with IEDC, the Center for Business and Economic Research at Ball State identified four broad categories in 2014 that offer the state opportunities for job growth:

1. Technologically Advanced Manufacturing
2. Biosciences
3. Emerging Media and Information Technology
4. Logistics

http://projects.cberdata.org/reports/KeySectors-Ro_Part1.pdf

Recent Studies for Consideration

In partnership with the Indiana Works Councils, Futureworks designed demand/supply analyses utilizing a combination of real-time data and Bureau of Labor Statistics Data.

1. The Futureworks analyses were focused on connecting occupational groupings with the supply of credentials from secondary and postsecondary institutions
2. The statewide report can be found at: www.in.gov/icc/files/Statewide_Demand_Supply_Report_FINAL_12-15-14.pdf
3. Regional reports can be found at: www.in.gov/irwc/ by clicking on the appropriate region and looking for "analysis."

Recent Studies for Consideration

The Brookings Institute identified 50 "Advanced Industries" by looking at two factors:

1. The amount of money spent on research and development per worker (top 80th percentile)
2. The percentage of workers whose occupations require a high degree of STEM knowledge (above the national average of 21%)

The Executive Summary of the Brookings study can be found at:

http://www.brookings.edu/~/media/Research/Files/Reports/2015/02/03-advanced-industries/final/AdvancedIndustry_ESFinalFeb21ores.pdf?la=en

Common Themes

1. There are some immediate and urgent workforce needs that must be addressed in certain industries (e.g. IT workers, truck drivers)
2. Focus is on technologically advanced industries regardless of study's approach
3. State approach that informs a local approach

Recommendations for State Approach

1. **For Adult Workers and Learners:** Use snapshot of data (demand, supply, wage) to identify top sectors with immediate needs as "priority now" sectors.
2. **For K-12 Students:** Consider building off of the Brookings Institute *Advanced Industries* Report by linking advanced industries to career clusters. Recommend to regional and local partners to integrate STEM skills in a broader sense into career counseling and courses.
3. **Urgency** is needed regardless of the "audience"

Recommendation 1: Priority Now Sectors

1. Advanced Manufacturing
2. Agriculture
3. Health Science
4. Information Technology
5. Transportation, Distribution and Logistics

Determination of Priority "Now" Sectors

Cluster	Weighted Salary	Opportunities
Business	$24.83	46166
Health Science	$27.52	37017
Transportation, Distribution, and Logistics	$17.76	24918
Manufacturing	$20.21	16695
Agriculture	$17.11	16177
Hospitality and Tourism	$9.88	15276
Marketing, Sales and Service	$20.54	11850
Human Services	$13.37	11077
Finance	$27.24	8368
Architecture and Construction	$22.41	8179
Government and Public Administration	$35.23	7262
Information Technology	$33.35	7137
Education and Training	$20.25	6606
A/V, Communication	$20.08	4633
STEM	$29.13	4332
Law and Public Safety	$26.63	3608

Priority "Now" Occupational Groupings

- The occupational groupings within each career cluster were broken down by number of opportunities that were either high wage or medium wage.
- Each occupational grouping was then checked against the "supply" analysis in the FutureWorks report and/or the Hoosier Hot 50.
- The top 5 occupational groupings for the priority sectors according to supply/demand and wage are shown.

Priority "Now" Occupations in Advanced Manufacturing

Occupational Grouping	Wage	Opportunity	Need demonstrated by FutureWorks and/or Hoosier Hot 50
Metal Workers and Plastic Workers	$17.53	2775	Y
Sales Representatives, Wholesale and Manufacturing	$32.59	1331	Y
Supervisors of Production Workers	$26.12	1281	Y
Other Installation, Maintenance, and Repair Occupations	$19.88	1276	Y
Engineers	$36.91	891	Y

Priority "Now" Occupations in Agriculture

Occupational Grouping	Wage	Opportunity	Need demonstrated by FutureWorks and/or Hoosier Hot 50
Supervisors of Sales Workers	$19.92	2118	Y
Sales Representatives, Wholesale and Manufacturing	$32.59	1664	Y
Engineers	$36.91	891	Y
Vehicle and Mobile Equipment Mechanics, Installers, and Repairers	$18.52	726	Y
Other Sales and Related Workers	$17.38	557	Y

Priority "Now" Occupations in Health Science

Occupational Grouping	Wage	Opportunity	Need demonstrated by FutureWorks and/or Hoosier Hot 50
Health Diagnosing and Treating Practitioners	$41.91	13335	Y
Health Technologists and Technicians	$19.89	6092	Y
Engineers	$36.91	891	Y
Counselors, Social Workers, and Other Community and Social Service Specialists	$19.81	835	Y
Supervisors of Office and Administrative Support Workers	$23.7	808	Y

Priority "Now" Occupations in Information Technology

Occupational Grouping	Wage	Opportunity	Need demonstrated by FutureWorks and/or Hoosier Hot 50
Computer Systems Analysts	$33.46	1853	Y
Engineers	$36.91	891	Y
Network and Computer Systems Administrators	$31.21	866	Y
Software Developers, Applications	$40.62	641	Y
Computer Occupations, All Other	$33.32	586	Y

Priority "Now" Occupations in Transportation and Logistics

Occupational Grouping	Wage	Opportunity	Need demonstrated by FutureWorks and/or Hoosier Hot 50
Motor Vehicle Operators	$16.80	12232	Y
Material Recording, Scheduling, Dispatching, and Distributing Workers	$14.96	2313	Y
Engineers	$36.91	891	Y
Vehicle and Mobile Equipment Mechanics, Installers, and Repairers	$18.52	726	Y
Electrical and Electronic Equipment Mechanics, Installers, and Repairers	$21.66	698	Y

Priority "Now" Sectors and Occupations

- Should we utilize this data to go into detail about sectors and occupations at a state level?
- Should we develop a methodology that may be utilized at the regional level (where state or federal funds are concerned)?
  - FutureWorks has provided each region with supply/demand analysis similar to that at the state level.
  - The data outlined in the FutureWorks report can be replicated and possibly refined by DWD to look at more specific occupational trends at a regional level to help identify areas where there are immediate gaps in the workforce.

Priority "Now" Methodology

- Use real-time data and BLS data to develop an understanding of the occupational demand in each region **annually.**
- Investigate occupations at a deeper level than occupational groupings
- Use data from post-secondary credentials, certification programs, and unemployment data to determine the potential supply to meet those demands.
- Cross-reference wage, demand and supply to determine priority sectors.
- Does this provide a solid initial design for regions to identify priority sectors?
- How should wage and need be defined?
- How can we provide support to the regions in these efforts?

Priority "Now" Sectors

- Once priority sectors are determined, sector partnerships and career pathways can begin to take shape at a regional level.
- This can help drive regional development of programs where recent high school graduates, the adult education population, underemployed, and unemployed can enter a career path toward a sustainable future to fill immediate workforce needs.

Recommendation 2: Advanced Industries Focus

- Why are Advanced Industries important?
- "These industries encompass the nation's "tech" sector at its broadest and most consequential. Their dynamism is going to be a central component of any future revitalized U.S. economy. As such, these industries encompass the country's best shot at supporting innovative, inclusive, and sustainable growth."
- Employment growth in these industries is 1.9 times higher than the rest of the economy.
- 65% of new jobs created post-recession were in these industries.

Indiana Advanced Industries Focus

The 50 Industries That Constitute the Advanced Industries Sector

MANUFACTURING

- Aerospace Products and Parts
- Agr., Construction, and Mining Machinery
- Aluminum Production and Processing
- Audio and Video Equipment
- Basic Chemicals
- Clay Products
- Commercial and Service Industry Machinery
- Communications Equipment
- Computers and Peripheral Equipment
- Electric Lighting Equipment
- Electrical Equipment
- Engines, Turbines, and Power Trans. Equipment
- Foundries
- Household Appliances
- Industrial Machinery
- Iron, Steel, and Ferroalloys
- Motor Vehicle Bodies and Trailers
- Motor Vehicle Parts
- Motor Vehicles
- Navigation, Measurement, and Control Instruments
- Other Chemical Products
- Other Electrical Equipment and Components
- Other General Purpose Machinery
- Other Miscellaneous Manufacturing
- Other Nonmetallic Mineral Products
- Other Transportation Equipment
- Pesticides, Fertilizers, and Other Agr. Chemicals
- Petroleum and Coal Products
- Pharmaceuticals and Medicine
- Railroad Rolling Stock
- Resins and Synthetic Rubbers, Fibers, and Filaments
- Semiconductors and Other Electronic Components
- Ship and Boat Building
- Medical Equipment and Supplies
- Reproducing Magnetic and Optical Media

ENERGY

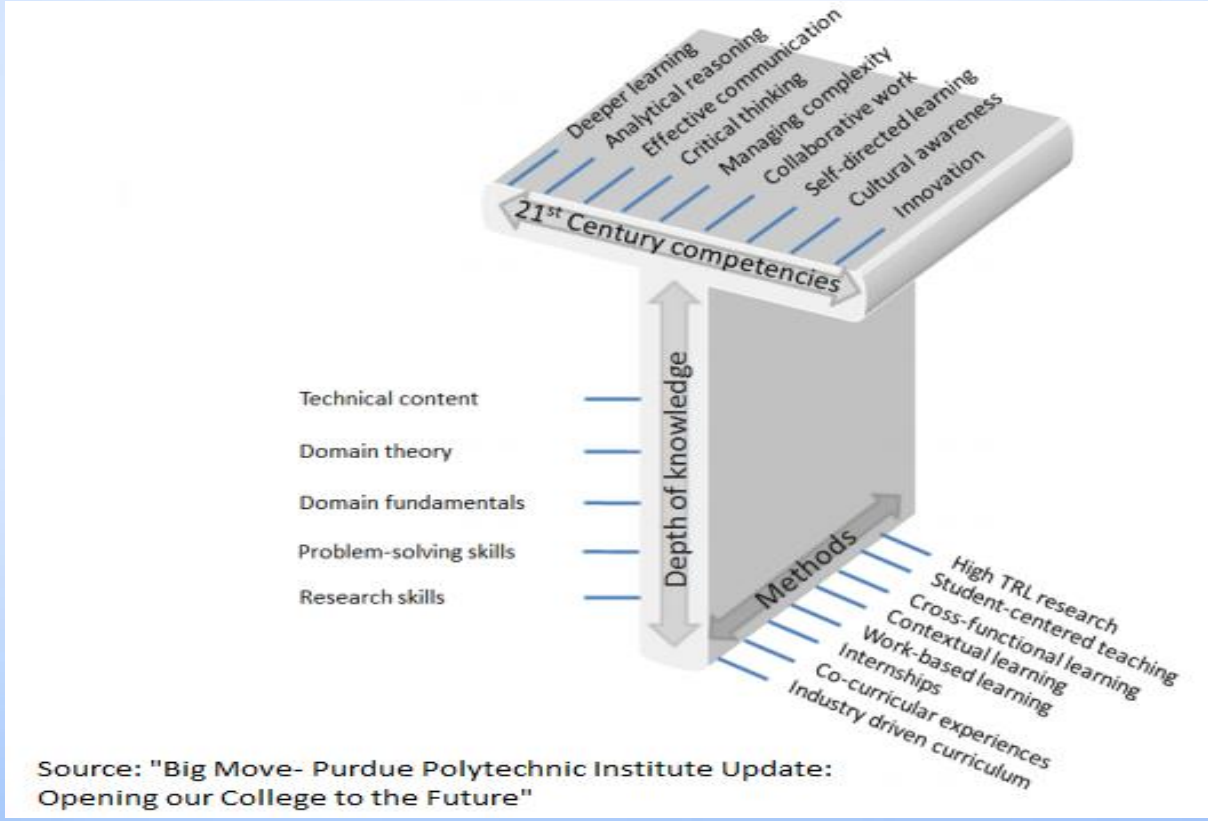
- Electric Power Generation, Trans., and Distribution
- Metal Ore Mining
- Oil and Gas Extraction

SERVICES

- Architecture and Engineering
- Cable and Other Subscription Programming
- Computer Systems Design
- Data Processing and Hosting
- Medical and Diagnostic Laboratories
- Mgmt., Scientific, and Technical Consulting
- Other Information Services
- Other Telecommunications
- Satellite Telecommunications
- Scientific Research and Development
- Software Publishers
- Wireless Telecommunications Carriers

Advanced Industries Focus

- Would require innovative regional approaches to be developed to:
  - Design career counseling toolkits
  - Design pathways and curriculum



Source: "Big Move- Purdue Polytechnic Institute Update: Opening our College to the Future"

INDIANA CAREER COUNCIL

Advanced Industries Focus

- Benefits to designing regional approaches that focus on redesigned career counseling and a "STEM" centered approach to career pathway development:

1. Sparks interest of students by making real-world connections with what they are learning.
2. Addresses 21st Century skills gap.
3. Provides students with the ability to adapt to emerging technologies.
4. Provides students with the tools to adjust to ever changing skills within the workplace.

Next Steps for Priority Sector Determination

- Adoption of Priority Sectors "Now" Methodology
- Adoption of "Advanced Industries" Focus
- Recommendations to Career Council so that agencies can begin to implement appropriate policies
  - All of this work will help to support the work of the Education and Workforce Innovation Network at the local level.

EWIN Regional Technical Assistance

Strategies to Support Regional Education Workforce Alignment Initiatives

EWIN

- Center of Excellence in Leadership of Learning (CELL)
- Education Workforce Innovation Network
  - Lilly Endowment
  - Indiana's Education Roundtable

Year 3 Initiatives

- Focus on *Regional* approaches
- Focus on *Outcomes*
- Clarify Terminology
- Encourage Collaboration

The Landscape

- Regional Strategies (WIB, Works Council, College Success Coalitions, CTE Boards, Philanthropic Strategies, etc.)

- Statewide Strategies (Career Council, ISTEM, Conexus, EWIN, etc.)

Strategy

- **Process-oriented**: Coalition Building Strategies
- **Outcome-oriented**: Sector Partnership Development and Pathway Development

EWIN Technical Assistance

STAGES		TIMELINE
STAGE 1 Analysis	**Initial Review** *Landscape Review* Working with Thomas P. Miller & Associates, CELL will conduct a landscape review in order to identify existing efforts and overlooked assets within each region. This review is intended to provide an overview of education-workforce efforts at the regional level, which may inform future partners and strategies for the Works Council moving forward.	Jan. - April 2015
STAGE 2 Training/ Capacity Building	**Process-Based Assistance** *Coalition Building Training* CELL will contract with the Coalition Building Institute to provide trainings and support to the regional Works Councils. This technical assistance will help each Works Council be positioned as a "back-bone" component for regional education-workforce efforts by appropriately identifying and coordinating existing assets.	April - Dec. 2015
STAGE 3 Support/ Professional Development	**Outcome-Based Assistance** *Sector Partnership Development* CELL and partners will assist Works Councils in initiating development of Sector Partnerships. The level and type of support provided will be developed in coordination with each Works Council. *Pathway Development* CELL and partners will assist Works Councils in creating a series of clearly articulated educational pathways. The level and type of support provided will be developed in coordination with each Works Council. *Other* As each region in Indiana is unique and various initiatives are already underway, CELL will work with each Works Council to provide further or alternative support on an "as needed" basis.	June - Dec. 2015

CELL University of Indianapolis.
Center of Excellence in Leadership of Learning

Technical Assistance

- Coalition Building: Institute for Coalition Building
- Sector Partnerships: Institute for Working Families and TPMA Inc.
- Pathways: Fleck Education and NC3T
- Etc.

Initial Feedback

- Coalition Building:
  - Positive Response
  - Lack of Clarification Regarding Ownership
- Sector Partnership
  - Existing Efforts
  - Multiple Definitions
  - Mandated Responsibilities
- Pathways
  - Existing Efforts
  - Multiple Definitions
- Partner Burnout?

Statewide Strategies

- Recommendations:
  - Align EWIN Technical Assistance projects with Career Council Pathways Taskforce initiatives
  - Develop consensus regarding definitions on Sector Partnerships and Pathways among state-level partners that remain flexible enough for local adaptation.
  - Begin to formulate long-term benchmarks and goals around sector partnerships and regional/local pathways.

Questions?

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Determining Definitions and Frameworks

- Develop and implement the framework for sector strategies/partnerships
- Determine optimal structure of partnerships
- Review existing partnerships throughout Indiana
- Determine if, and how much, funding is needed to launch new partnerships and/or enhance the work of existing partnerships

Indiana Sector Partnership Definition

An Indiana Sector Partnership is a workforce collaborative that:

- Acts in partnership with a state or local board
- Includes representation from government, education, training, economic development, labor and community organizations
- Organizes key stakeholders from an industry cluster into a working group that focuses on the shared goals and human resource needs of the industry cluster
- Provides a mechanism for education, job skills training, and career development that corresponds to sector needs

Sector strategies are partnerships of employers within one industry that bring government, education, training, economic development, labor, and community organizations together to focus on the workforce needs of an industry within a regional labor market. At the state level, they are policies and investments that support the development of local sector partnerships.

-National Governors Association

Indiana Career Pathway Definition

An Indiana Career Pathway is a combination of rigorous and high-quality education, training, and other services that:

- Aligns with the **skill needs occupations and careers with a focus on regional industries** that are critical to Indiana's current and future economy
- Helps an individual **enter or advance** within a specific career cluster through:
  - Including **intensive career counseling** that supports an individual in identifying and achieving his or her education and career goals
  - Preparing individuals to be successful in a full range of secondary or postsecondary opportunities**, especially work-and-learn experiences.**
  - **Accelerating** the educational and career advancement opportunities of each individual as much as possible
  - Where possible**, offering foundational skills education concurrently with occupational education** for secondary and postsecondary learners. This includes utilization of career pathway programs that prepare learners for postsecondary education, training, apprenticeship, or direct entry into skilled careers.
  - Ensuring the attainment of a **secondary diploma or its equivalent** and at least one **postsecondary credential or industry-recognized certification.**

Promoting *A Guide to Talent Attraction and Development for Hoosier Employers*

- Toolkit added to Career Council website for public/business access
- Lieutenant Governor debuted the guide at the BioCrossroads event last week, with limited distribution at the event
- Link embedded in BioCrossroads podcast that was distributed to their network last week
- CHE will include it among their linked resources for Career Ready activities during the month of April (and actually through July)
- Sent to the Works Councils and the Workforce Investment Boards for distribution

Next Steps

- Refining recommendations for priority sectors
- Overview of Sector Partnerships and Career Pathway frameworks
- Career Counseling Updates from IDOE
- Continued promotion of work-and-learn opportunities